



THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Michael Burrows et al.	§	Art Unit:	2131
		§		
Serial No.:	09/991,108	§		
		§	Examiner:	Longbit Chai
Filed:	November 16, 2001	§		
		§		
For:	Method and System for	§	Atty. Dkt. No.:	200301735-2
	Limiting the Impact of	§		(HPC.0243US)
	Undesirable Behavior of	§		
	Computers on a Shared Data	§		
	Network	§		

Mail Stop AF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed. This request is being filed with a Notice of Appeal.

CLAIMS 1 AND 22

Claim 1 was rejected as being obvious over the asserted combination of Bass and Leeds. As conceded in the Office Action, Bass fails to disclose preventing dissemination that comprises at least one of changing a routing table, changing a forwarding table, turning off at least one of a forwarding device, filtering on Internet Protocol (IP) addresses, and filtering on media access control (MAC) addresses. 8/4/2005 Office Action at 5. However, the Office Action relied upon Leeds as disclosing the feature missing from Bass. *Id.* In particular, the Office Action asserted that Leeds teaches preventing dissemination by changing a routing table (citing column 6, lines 59-62, of Leeds). *Id.* Applicant respectfully submits that a *prima facie* case of obviousness has not been established with respect to Bass and Leeds.

As conceded by the Office Action, Bass clearly does not disclose the last clause of claim 1. However, the reliance on Leeds as teaching the feature in this last clause of claim 1 is clearly misplaced. Leeds describes a system for parsing and analyzing incoming e-mail messages to determine whether messages are junk e-mail. *See* Leeds, Abstract. As described in connection

Date of Deposit: October 26, 2005

I hereby certify under 37 CFR 1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated above and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313.

Ginger Yount
Ginger Yount

with Fig. 8 of Leeds, an authentication server 700 is able to verify whether an identifier issued to a mail originator remains valid and has not been reported as a spam abuser. Leeds, 6:55-59. If a recipient has received spam, the identifier is matched with a spam designation based upon the number of mail recipients reporting the problem. Leeds, 6:59-63. The reported identifier is then assigned to a spam section of an authentication database 710. Leeds, 6:63-65. Thus, what is occurring in Leeds is the association of identifiers in a spam database that identify originators of spam e-mail. Filtering is performed based on the content of this spam database.

Contrary to the assertion made in the Office Action, associating an identifier with a spam designation does not constitute changing a routing table. Therefore, because neither Bass nor Leeds teaches or suggests the claimed invention, it is respectfully submitted that the hypothetical combination of Bass and Leeds does not teach or suggest all elements of claim 1.

Moreover, no motivation or suggestion existed to combine the teachings of Bass and Leeds. Bass describes a technique for reducing likelihood of broadcast storms in a network based on the transmission of multiple destination messages (such as broadcast messages or multicast messages). Bass, 1:23-34; 2:11-14. Bass indicates that multiple destination messages are classified into multiple broadcast message classes, with a count associated with each broadcast message class. Bass, 2:24-33. If the count of a particular class of multiple destination messages exceeds a threshold, then this class of multiple destination messages is discarded to reduce the likelihood of a broadcast storm. Bass, 6:6-10.

In contrast to counting multiple destination messages performed in Bass for the purpose of preventing broadcast storms, Leeds is associated with a quite different concern, namely filtering junk e-mail or spam. Filtering junk e-mail involves a problem and a solution to that problem that are completely different from the problem and solution associated with preventing broadcast storms as performed in Bass. A person of ordinary skill in the art would not have been motivated to employ the spam designation technique described in Leeds with the broadcast storm prevention technique of Bass (which involves determining whether a count of certain types of messages exceeds a threshold). Clearly, no motivation or suggestion existed to combine the teachings of Bass and Leeds.

Independent claim 22 is clearly allowable for similar reasons.

CLAIM 42

Independent claim 42 was also rejected as being obvious over Bass and Leeds. The Office Action conceded that Bass does not disclose the means for determining if the information about the pattern of behavior from any of the computers is trustworthy. Reliance was made on

Leeds as teaching this element missing from Bass. It is respectfully submitted that a *prima facie* case of obviousness has also not been established with respect to claim 42.

As conceded by the Office Action, Bass does not disclose the means for determining if the information about the pattern of behavior from any of the computers is trustworthy. 8/4/2005 Office Action at 8. Moreover, contrary to the incorrect assertion in the Office Action, Bass also fails to disclose another element of claim 42, namely the means for monitoring the network for any patterns of behavior, including, if available, information about a pattern of behavior from *any of the computers about another one of the computers*. This monitoring means of claim 42 monitors information from one of the computers *about* another one of the computers. Monitoring for such information is not performed at all in Bass. In Bass, a switch 10 or computer 26 (see Fig. 1 of Bass) contains a mechanism that includes counters for counting multiple destination messages of different classes. The information maintained by the counters cannot constitute information *from any of the computers about another one of the computers*.

Because of this defective application of Bass to the claimed subject matter, the obviousness rejection is defective for at least this reason.

The obviousness rejection is further defective for the reason that Leeds does not disclose or suggest the means for determining if the information about the pattern of behavior from any of the computers is trustworthy. Determining whether an incoming mail message is a junk e-mail, as performed by Leeds, is *not* the same as determining if information *about a pattern of behavior from any of the computers* is trustworthy. Leeds does not teach or even remotely suggest that the e-mails received by the authenticator of Leeds contains any information about a pattern of behavior. Thus, the citation of Leeds as teaching the means for determining if the information about the pattern of behavior from any of the computers is trustworthy is erroneous, as Leeds does *not* teach or suggest the element conceded by the Office Action as missing from Bass.

In view of the foregoing, it is clear that the hypothetical combination of Bass and Leeds does not teach or suggest all elements of claim 42. Additionally, for reasons stated above, there existed no motivation or suggestion to combine the teachings of Bass and Leeds. The *prima facie* case of obviousness is defective for this additional reason.

CLAIM 59

Independent claim 59 was rejected as being obvious over Bass and Arndt. It is respectfully submitted that a *prima facie* case of obviousness has not been established with respect to claim 59.

The Office Action conceded that Bass does not disclose monitoring a network for an undesirable pattern comprising at least one of a stolen IP address, stolen MAC address, malformed packet, too many probe packets directed to a firewall, and too many address resolution protocol packets. 8/4/2005 Office Action at 27. However, the Office Action relied upon Arndt as disclosing this feature. *Id.*

It is respectfully submitted that a person of ordinary skill in the art would not have been motivated to combine the teachings of Bass and Arndt to achieve the claimed invention. As discussed above, Bass is related to a mechanism that includes counters for counting whether different classes of multiple destination messages exceed a threshold, and if such a threshold is exceeded, discarding the multiple destination messages. Bass performs such tasks for the purpose of preventing broadcast storms. The teachings of Arndt are completely unrelated to the prevention of broadcast storms. Arndt is related to a method and device for automatically obtaining a valid IP configuration in a local area network and a test instrument for networks. Arndt, 1:8-11. The method described in Arndt for obtaining an IP configuration automatically involves continuously monitoring traffic to identify local addresses, corresponding subnet masks, local routers, and servers. Arndt, 2:22-27. However, there is absolutely no teaching or suggestion in Arndt that the network monitoring performed in Arndt is applicable for the purpose of preventing broadcast storms. Also, clearly, Arndt has nothing to do with determining a type of the undesirable pattern that is monitored, where the undesirable pattern comprises at least one of a stolen IP address, stolen MAC address, malformed packet, too many probe packets directed to a firewall, and too many address resolution protocol packets, for the purpose of mitigating the undesired pattern based on the type of undesirable behavior. Thus, clearly, a person of ordinary skill in the art would not have been motivated to combine the teachings of Bass and Arndt to achieve the subject matter of claim 59. A *prima facie* case of obviousness has therefore not been established with respect to claim 59.

CLAIM 61

Independent claim 61 was rejected as being obvious over Bass and Regan. A *prima facie* case of obviousness has not been established with respect to claim 61.

As conceded by the Office Action, Bass does not disclose discovering a topology of the network, and causing prevention of dissemination over the network of packets associated with the undesirable behavior based on the type of the undesirable behavior and topology of the network. 8/4/2005 Office Action at 29. Reliance was made on Regan as teaching this element that is missing from Bass. *Id.*


Applicant respectfully submits that the reliance on Regan as teaching an element missing from Bass is misplaced. Regan describes use of a Spanning Tree Protocol (STP) that is designed to allow bridges to map a network topology while eliminating loops which could lead to broadcast storms. Regan, 2:7-13. Regan also teaches a bridge that employs a prior distance vector protocol and learning processes to manage the topology of a bridge network layer. Regan, 4:56-59. Additionally, the network topology information is retained in a filtering database that is configured by a management action or by a learning process and algorithm. Regan, 6:40-45. There is no teaching or suggestion in Regan of discovering a topology of the network, *in combination with* causing prevention of dissemination over the network of packets associated with the undesirable behavior *based on the topology of the network* (as well as based on the type of the undesirable behavior). Thus, the hypothetical combination of Bass and Regan does not teach or suggest all elements of claim 61.

Moreover, a person of ordinary skill in the art would not have been motivated to combine the teachings of Bass and Regan. Regan is directed to a method and apparatus for dynamically managing the topology of a data network. Regan, 2:66-3:1. A bridge depicted in Fig. 1 of Regan employs a prior distance vector protocol and learning processes to manage the topology of the layer 2 learning bridge network layer 106. Regan, 4:56-69. Although reference is made to managing topology, there is no teaching or suggestion whatsoever in Regan of causing *prevention of dissemination* over the network of packets associated with an undesirable behavior based on the type of the undesirable behavior and topology of the network. Thus, a person of ordinary skill in the art would not have been motivated to use the topology management technique taught by Regan in the system of Bass, where counters are used to count numbers of multiple destination messages to determine if a threshold has been crossed. A *prima facie* case of obviousness is thus defective for this additional reason.

Thus, clear legal and factual errors have been committed in the obviousness rejections of the claims.

Respectfully submitted,

Date: Oct. 26, 2005



Dan C. Hu
Registration No. 40,025
TROP, PRUNER & HU, P.C.
8554 Katy Freeway, Suite 100
Houston, TX 77024
Telephone: (713) 468-8880
Facsimile: (713) 468-8883